

ence matrix comprises sparse vectors associated with words, access at least a part of at least one sparse vector of said experience matrix to form a prediction output, and provide suggestions of web pages to a user in response to said prediction output.

**[0013]** According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to form an input buffer for collecting words for updating said experience matrix. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to form said prediction output based on web browser activity. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to form said prediction output based on a page load completion. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to form said prediction output in the background. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to update said experience matrix based on web browser activity. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to form a prediction list comprising images or text of web pages, and update said prediction list based on web browser activity. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to as a result of said prediction output, provide suggestions on other related data than web pages. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to use abstraction metadata in forming said experience matrix. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to use abstraction metadata in forming said prediction. According to an embodiment, said abstraction metadata is country-specific. According to an embodiment, said abstraction metadata is in the form of an experience matrix. According to an embodiment, the apparatus comprises computer program code configured to cause the apparatus to use in a weighted manner site content and said abstraction metadata in forming said prediction.

**[0014]** According to a sixth aspect there is provided an apparatus comprising means for forming a set of words for use with an experience matrix, wherein the words are descriptive of a context of a system such as a current web page, and wherein said experience matrix comprises sparse vectors associated with words, means for accessing at least a part of at least one sparse vector of said experience matrix to form a prediction output, and means for providing suggestions of web pages to a user in response to said prediction output.

**[0015]** According to an embodiment, the apparatus comprises means for forming an input buffer for collecting words for updating said experience matrix. According to an embodiment, the apparatus comprises means for forming said prediction output based on web browser activity. According to an embodiment, the apparatus comprises means for forming said prediction output based on a page load completion. According to an embodiment, the apparatus comprises means for forming said prediction output in the background. According to an embodiment, the apparatus comprises means for updating said experience matrix based on web browser activity. According to an embodiment, the apparatus comprises means for forming a prediction list comprising images or text of web pages, and means for updating said prediction list based on web browser activity. According to an embodiment, the appa-

ratus comprises means for providing suggestions on other related data than web pages as a result of said prediction output. According to an embodiment, the apparatus comprises means for using abstraction metadata in forming said experience matrix. According to an embodiment, the apparatus comprises means for using abstraction metadata in forming said prediction. According to an embodiment, said abstraction metadata is country-specific. According to an embodiment, said abstraction metadata is in the form of an experience matrix. According to an embodiment, the apparatus comprises means for using in a weighted manner site content and said abstraction metadata in forming said prediction.

**[0016]** According to a seventh aspect there is provided a system comprising at least one processor, at least one memory including computer program code for one or more program units, the at least one memory and the computer program code configured to, with the processor, cause the system to form a set of words for use with an experience matrix, wherein the words are descriptive of a context of a system such as a current web page, and wherein said experience matrix comprises sparse vectors associated with words, access at least a part of at least one sparse vector of said experience matrix to form a prediction output, and provide suggestions of web pages to a user in response to said prediction output.

**[0017]** According to an embodiment, the system comprises computer program code configured to cause the system to form an input buffer for collecting words for updating said experience matrix. According to an embodiment, the system comprises computer program code configured to cause the system to form said prediction output based on web browser activity. According to an embodiment, the system comprises computer program code configured to cause the system to form said prediction output based on a page load completion. According to an embodiment, the system comprises computer program code configured to cause the system to form said prediction output in the background. According to an embodiment, the system comprises computer program code configured to cause the system to update said experience matrix based on web browser activity. According to an embodiment, the system comprises computer program code configured to cause the system to form a prediction list comprising images or text of web pages, and update said prediction list based on web browser activity.

**[0018]** According to an embodiment, the system comprises computer program code configured to cause the system to, as a result of said prediction output, provide suggestions on other related data than web pages. According to an embodiment, the system comprises computer program code configured to cause the system to use abstraction metadata in forming said experience matrix. According to an embodiment, the system comprises computer program code configured to cause the system to use abstraction metadata in forming said prediction. According to an embodiment, said abstraction metadata is country-specific. According to an embodiment, said abstraction metadata is in the form of an experience matrix. According to an embodiment, the system comprises computer program code configured to cause the system to use in a weighted manner site content and said abstraction metadata in forming said prediction.

#### DESCRIPTION OF THE DRAWINGS

**[0019]** In the following, various embodiments of the invention will be described in more detail with reference to the appended drawings of example embodiments, in which